

In the Claims:

Amend original claims 1-2, 5-6, 9-10, and 11-14 as follows.

B4

1 (Once Amended). A method for stimulating angiogenesis within a targeted collection of viable cells in-situ, said method comprising the steps of:

identifying a collection of cells comprising viable cells in-situ as a target for stimulation of angiogenesis;

providing means for effecting an introduction of at least one member selected from the group consisting of the PR-39 oligopeptide collective to the cytoplasm of said targeted collection of cells;

introducing at least one member of the PR-39 oligopeptide collective to the cytoplasm of said targeted collection of cells using said effecting means;

allowing said introduced PR-39 oligopeptide collective member to interact with such proteasomes as are present within the cytoplasm of said targeted collection of cells whereby

(a) at least the  $\alpha_7$  subunit of the proteasomes interacts with said PR-39 oligopeptide collective member, and

(b) at least a part of the proteolytic activity mediated by proteasomes with an interacting  $\alpha_7$  subunit becomes functionally [selectively] altered, and

*B4*  
*Conti*

(c) the functionally [selectively] altered proteolytic activity of the proteasomes with said [an] interacting  $\alpha_7$  subunit results in a stimulation of angiogenesis in-situ [within the targeted collection of viable cells].

2 (Once Amended). A method for a discriminating [selective] inhibition of proteasome-mediated degradation of peptides in-situ within a collection of viable cells, said method comprising the steps of:

identifying a collection of cells comprising viable cells in-situ as a target;

*Mb C1X*

providing means for effecting an introduction of at least one member selected from the group consisting of the PR-39 oligopeptide collective to the cytoplasm of said targeted collection of cells;

introducing at least one member of the PR-39 oligopeptide collective to the cytoplasm of said targeted collection of cells using said effecting means;

allowing said introduced PR-39 oligopeptide collective member to interact with such proteasomes as are present within the cytoplasm of said targeted collection of cells whereby

(a) at least the  $\alpha_7$  subunit of the proteasomes interacts with the PR-39 oligopeptide collective member, and

*B4*  
Conclude  
*M C N*

(b) at least a part of the proteolytic activity mediated by proteasomes with an interacting  $\alpha_7$  subunit becomes functionally [markedly] altered, and

(c) the functionally [markedly] altered proteolytic activity of the proteasomes with said [an] interacting  $\alpha_7$  subunit results in a discriminating [selective] inhibition of proteasome-mediated degradation [of] for at least one specific peptide [peptides] in-situ [within the targeted collection of cells].

*B5*  
*M C2*

5 (Once Amended). The method as recited in claim 1 or 2 wherein the means for an introduction of a PR-39 oligopeptide collective member include one selected from the group consisting of catheter-based [introduction] means, injection-based [introduction] means, infusion-based [introduction] means, localized intravascular [introduction] means, liposome-based [introduction] means, receptor-specific peptide [introduction] means, and slow-releasing means for peptide secretion in living cells and sequestered organisms.

6 (Once Amended). The method as recited in claim 1 or 2 wherein the means for an introduction of a PR-39 oligopeptide collective member includes [the] DNA sequences coding for at least one PR-39 oligopeptide

*B5*  
*Conclude*  
*MW*  
*C2*

collective member in an expression [PR-39 oligopeptides of different sizes inserted in a suitable] vector for transfection and subsequent expression of said peptide [peptides] within said cells.

Claim 9, line 1, ~~delete "selectively"~~ and insert -- markedly --.

Claim 10, line 1, ~~delete "selectively"~~ and insert -- markedly --.

*B6*

11 (Once Amended). A family of PR-39 derived oligopeptides whose members are biochemically active and individually cause a functional [selective] inhibition of proteasome-mediated degradation [of] for at least one specific peptide [peptides] in-situ after introduction intracellularly to a viable cell, each member of said oligopeptide family being:

*MN*  
*CS*

a peptide substantially less than 39 amino acid residues in length;

a peptide whose N-terminal amino acid residue sequence begins with Arg-Arg-Arg;

at least partially homologous with the N-terminal amino acid sequence of [the] native PR-39 peptide;

able to interact in-situ with at least the  $\alpha 7$  subunit of such proteasomes as are present within the cytoplasm of the cell; and

able to alter [markedly] the functional proteolytic activity of said proteasomes having [with] an interacting  $\alpha 7$  subunit such that a markedly

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increased expression of at least one specific peptide [peptides] occurs in-situ.

conclude

Claim 12, line 1, after "claim 11", insert -- or 15 --.

Claim 13, line 1, after "claim 11", insert -- or 15 --.

Claim 14, line 1, after "claim 11", insert -- or 15 --.

Add new independent claim 15 as follows.

B7

15. A family of PR-39 derived oligopeptides whose members are biochemically active and individually cause a functional inhibition of proteasome-mediated degradation of at least one specific peptide in-situ after introduction intracellularly to a viable cell, each member of said oligopeptide family being:

a peptide less than 20 amino acid residues in length;

a peptide whose N-terminal amino acid residue sequence begins with Arg-Arg-Arg;

at least partially homologous with the N-terminal amino acid sequence of native PR-39 peptide;